in making these blocks of cast iron, as most of the surfaces have to be machined, and the difference in the cost of material on such a comparatively small piece is very slight.

Cup and Cone Locating Points. — When it is essential that a cylindrical part of the work be located centrally either with the outside of a cylindrical surface or with the center of a hole

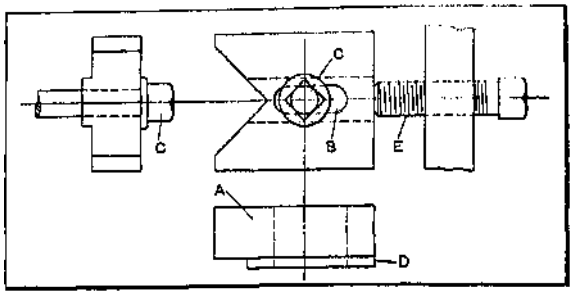

Fig. 5. Adjustable V-block used for Locating Purposes

passing through the work, good locating means are provided by the designs shown in Figs. 6 and 7. In Fig. 6, the stud *A* is countersunk conically to receive the work. The stud *A* is made of machine or tool steel, and may, in many cases, serve as a bushing for guiding the tool. In Fig. 7, the stud is turned conically in order to enter into a hole in the work. These two

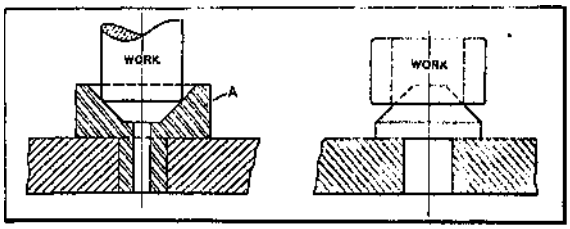

Fig. 6. Recessed Stud used for Locating Round Work in a Jig with Relation to the Center

Fig. 7. Conical Stud used tor Locating Work in Relation to the Center of a Hole

locating appliances are always made stationary, and are only used for locating the work, never for binding or clamping.

Screw Bushings and Sliding Bushings used as Locating Means. — Screw bushings may be used for locating and clamping purposes by making them long enough to project through the walls of the jig and by turning a conical point on them, as